allow energy consumption and power output to be adapted to special ambient circumstances, such as sunlight or darkish surroundings.

Because the light pulse emitting units **4**, **4'** are ignited during a time slot of short duration, these units can be overloaded for higher light intensities without being destroyed.

In the case of a touch screen **1**, constructed in accordance with the invention, it is solely the optical positioning P**1** that is measured (no pressure requirement) thereby enabling movement of the thumb along the upper surface **3***a* of the display unit **3** to be determined in a calculating circuit **6***g*, such as determination of a sign or activation of a telephone function.

For example, the thumb **90** may be moved in a direction from right to left, so as to activate the "finish/close" function.

The proposed technique provides absolute positioning. This obviates the need to calibrate the unit.

By setting conditions for what shall be estimated as the measured position P**1**, the technique can be readily applied with a small display (restricted to said surface) as a keyboard.

Because no functional component is required over the display unit **3**, there can be used a conventional plastic cover that can be changed when scratched.

The calculating unit **6***c* need not necessarily be adapted to calculate a centre of the pointer, e.g. of the thumb **90**. It may, at times, be convenient to allow the outermost edge or outermost edges of the covered surface section to be read.

As will be evident from FIG. **9**, orientation of the position P**1** can be derived by the units **5'**B and **5'**H indicating light pulses, whereby the unit can be **5'**E considered the most likely in this regard.

The position P**1** is derived from the fact that the unit **5**O does not indicate light pulses, but that the unit **5**N does so.

This is interpreted as meaning that the key or button (**8**) located at a corresponding height shall be activated.

Correspondingly, FIG. **10** shows that the orientation of position P**1** can be determined by ascertaining that the row-related units **5'**D-**5'**H and the column-related units **5**S, **5**R and **5**Q are extinguished.

This can be interpreted by the calculating unit **6** as meaning that the key or button (**6**) located on a row or at a height shall be activated.

The calculating unit **6** also provides a switch between an inactive state and an active state, wherein the inactive state provides a light pulse frequency of about 10 Hz, while the active state provides a time slot of 5-26 μs.

A time circuit **6***h* provides an automatic switch between these states or functions, such that a switch to the inactive state is carried out in the event of a waiting time of 2-5 sec. after an active state and in the absence of any actuation.

It will be understood that the invention is not restricted to the afore described exemplifying embodiments thereof, and that modifications can be made within the scope of the inventive concept illustrated in the accompanying Claims.

The invention claimed is:

1. A touch screen apparatus, comprising:

a display unit comprising a touch surface;

a number of light pulse emitting units, connecting to said display unit, for emitting light pulses over and across said touch surface;

a number of light pulse receiving units, connected to said display unit, for measuring amounts of light received from said light pulse emitting units;

circuitry, connected to said light pulse emitting units and to said light pulse receiving units, for selectively activating, at any given time, one or more of said light pulse emitting units and said light pulse receiving units, wherein said circuitry activates three or more light pulse emitting units and only one light pulse receiving unit during a designated time interval; and

a calculating unit, connected to said light pulse receiving units, to determine the location of an object touching said touch surface, based on the measured amounts of light received at said receiving units.

2. The touch screen apparatus of claim **1** wherein said circuitry activates a light pulse emitting unit for a pulse time no longer than 10 μs.

3. The touch screen apparatus of claim **1** wherein said circuitry activates a light pulse emitting unit with an electrical current of at least 1A.

4. The touch screen apparatus of claim **1** wherein said circuitry activates a light pulse emitting unit slightly before activating a light pulse receiving unit to receive the emitted light pulse.

5. The touch screen apparatus of claim **1** wherein said circuitry pauses for an idling time between successive activations of light pulse emitting units.

6. The touch screen apparatus of claim **1** wherein said circuitry increases the intensities of light pulse emitting units to suppress disturbances caused by ambient light.

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